4. Alignment and Adjustments

4-1 General Alignment Instructions

1. Usually, a color TV-VCR needs only slight touch-up adjustment upon installation. Check the basic characteristics such as height, horizontal and vertical sync and focus.

2. Observe the picture for good black and white details. There should be objectionable color shading; if color shading is present, demagnetize, perform purity and convergence adjustments described below.

3. Use the specified test equipment or its equivalent.

4. Correct impedance matching is essential.

5. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test results.

6. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.

7. Do not attempt to connect or disconnect any wires while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.

8. To protect against shock hazard, use an isolation transformer.

4-2 Automatic Degaussing

A degaussing coil is mounted around the picture tube, so that external degaussing after moving the TV should be unnecessary. But the receiver must be properly degaussed upon installation.

The degaussing coil operates for about 1 second after the power is switched ON. If the set is moved or turned in a different direction, the power should be OFF for at least 10 minutes.

If the chassis or parts of the cabinet become magnetized, poor color purity will result. If this happens, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube and the sides and front of the receiver. Slowly withdraw the coil to a distance of about 6 feet before turning power OFF.

If color shading persists, perform the following Color purity and Convergence adjustments.

4-3 High voltage Check

CAUTION : There is no high voltage adjustment on this chassis. The B+ power supply should be +135 volts (with full color- bar input and normal picture level).

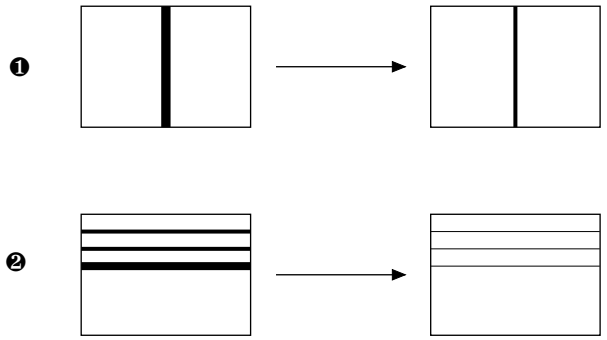
1. Connect a digital voltmeter to the second anode of the picture tube.

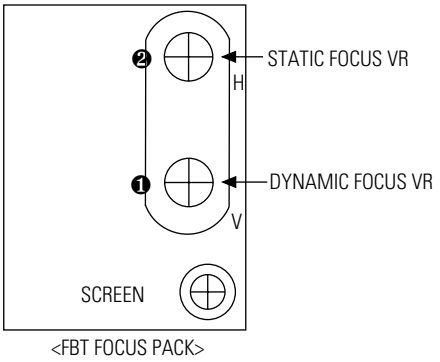
2. Turn on the TV. Set the Brightness and Contrast controls to minimum (zero beam current).

3. Adjust the Brightness and contrast controls to both extremes. Ensure that the high voltage does not exceed 32 KV under any conditions.

4-4 Dynamic Focus Adjustment

1. A dynamic focus adjustment should be done after replacing the CRT PCB, FBT or CRT.
2. Input a crosshatch pattern.
3. Enter " STANDARD " in video mode.
4. Turn the Dynamic focus VR fully clockwise (maximum).(❶)
5. Turn the Static focus VR fully counterclockwise (maximum).(❷)
6. Slowly turn the static focus VR counterclockwise. Adjust until the vertical line in the middle of the screen has maximum clarity.(❶)
7. Slowly turn the dynamic focus VR (clockwise) and adjust the 3rd horizontal line for maximum clarity.(❷)
8. Repeat 4-7, if necessary.





<FBT FOCUS PACK>

4-5 SCREEN Adjustment

1. Input Toshiba Pattern
2. Enter "Service Mode".(Refer to "Service Mode")
3. Select "G2-Adjust".
4. Set the values as example(Refer to page4-24).

ex) IBRM = 220
WDRV = 35
CDL = 220
COLR G B = 150 150 150

5. Turn the SCREEN VR until “MRCR G B” and “MRWDG” are green and those value are about 100. (The incorrect SCREEN Voltage may result that “MRCR G B” and “MRWDG” should be red)

Note 1. When you do not have Toshiba Pattern, follow this method.

1. Set the TV on the condition that AV mode no signal(black)
2. Enter the “Menu” and set the mode to blue screen off.
3. Enter the “Service Mode”.
4. Select “ G2-Adjust”.
5. Set the values as example(Refer to page4-24).

ex) IBRM = 220
WDRV = 35
CDL = 220
COLR G B = 150 150 150

6. Turn the SCREEN VR until the value of “ MRCR G B” is about 120. Do not mind that the “OSD” Color is red.

■ After completing G2-Adjust, follow this procedure.

① Enter the “Video Adjust 1”.
② Choose any item in menu. (ex. Select “Red Cutoff”)
③ Change the value of item you select, and recover the value.

For example, when the value of “Red Cutoff” is 127, change the value to 128 and restore the value to 127.

If you do not follow this procedure, the picture may be abnormal.
For example, when the TV set is on, the picture becames brighter gradually.

4-6 E²PROM (IC902) Replacement

1. When IC902 is replaced, all adjustment data revert to the initial values.
   So, all adjustment values when servicing should be readjusted.
2. After IC902 is replaced, connect the AC power supply cord.
3. Turn the power switch ON.
4. In stand-by, warm up the TV for at least 10 seconds.
5. Power on the TV.

4-7 White Balance Adjustment

■ Equipment : Color-Analyzer (CA-100)
■ Input Signal : Pattern signal (Toshiba pattern)

1. Select STANDARD from the menu.
2. Input an 100% White pattern.
3. Enter the “Service Mode”. (Refer to “4-8 Service Mode”)
4. Warm up the TV set at least for 30 minutes.
5. Input a Toshiba pattern signal.
6. Enter the “Video Adjust1”.
   - Adjust “Sub Contrast” so that Y (luminance) becomes 40 ft ± 3.
   - Use “Red Drive” and “ Blue Drive” to adjust High-Light (x : 290, y : 300)
   - Adjust “Sub Bright” so that Y (luminance) becomes 1.3ft ± 0.3.
   - Use “Red Cutoff” and “Blue Cutoff” to adjust Low-Light (x : 290, y : 300).
7. Adjust CA-100 so that the final adjustment value can be fixed.
8. Use the Channel Up / Down (▲/▼) buttons to move the cursor on the adjustment modes.
9. Use the Volume + / - buttons to change the adjustment value.

■ SMPS Controller differentiol List

1265RB		1265RD	
LOC.	SPEC	LOC.	SPEC
DZ808	MTZ8.28	DZ808	MTZ8.28
C811	47NF	C811	47NF
C828	221.50V	C828	221.50V

Note 2. **KS3A 29” Flat 50Hz, CRT Change(Double Focus → Single Focu)**

■ Background : It is occurred to service confusion

■ Cause : CRT Socket PCB change as CRT changing from Double Focus to Single Focus

■ How to service

Code : It is different to CRT Socket Code per focus type

CRT Socket	Code No
For Double Focus	3704-001032
For Single Focus	3704-000114

Case :

1. Using CRT Socket PCB for Single Focus at CRT for Double Focus

   (1) Change the CRT Socket in PCB(Single → Double).

   (2) Cut the red-colored focus wire of FBT in set.

   (3) Connect the wires at Focus terminal like picture #1 for short circuit using red-colored focos wire of FTB.

2. Using CRT Socket PCB for Double Focus at CRT for Single Focus

   (1) Change the CRT Socket in PCB(Double → Single).

   (2) Cut the red-colored focus wire of FBT in set like picture #2.

   ❊ You mus tape the isolation parts for safety.

4-8 Factory Adjustment

4-8-1 Service Mode

1. To enter the "Service Mode", Press the remote-control keys in this sequence :

   - If you do not have Factory remote-control

   PICTURE OFF → DISPLAY (+) → MENU → MUTE → PICTURE ON

   - If you have Factory remote-control

   PICTURE ON → DISPLAY (+) → FACTORY

2. After the Service Mode is entered, the initial screen is as shown in the figure below.

Service

Deflection
Video Adjust 1
Video Adjust 2
Video Adjust 3
Option(81h 0Ch)*
Reset
G2-Adjust
Others

* These hexa digits are check sum value which depends on the MICOM.
If check sum value is changed, the value of E^2PROM Data newly initialed.

3. Use the Channel Up / Down buttons to move the cursor in the adjustment parameters.

Note 3.

- When CRT, CRT PCB, FBT, E^2PROM (sometimes MICOM) is replaced, the adjustment values should be controlled.

- After the Service adjustment is completed, Do not select "Reset" in the service mode menu. (After above procedure is done, power is on initially and the "Plug and Play" will be operated.)

4-8-2 Memory Data

4-8-2(A) DEFLECTION (GEOMETRIC ADJUSTMENT VALUE)

No.	OSD	Function	Remark
1	V Amp	Adjusts Vertical picture size. Adjust 4:4 upper and below picture size in lion head pattern at factory.	Adjust
2	V Shift	Adjusts Vertical picture position	Adjust
3	V Slope	Adjusts Vertical Slope Correction	Adjust
4	V SC	Adjusts Vertical s-correction	Fix
5	H EW	Horizontal east west width. Adjust 5:5 left and right picture size in lion head pattern at factory.	Adjust
6	H Trapizium	Adjusts horizontal Trapezium.	Adjust
7	H Parabola	Adjusts Horizontal Parabola.	Adjust
8	H Symmetry	Adjusts Picture upper and below horizontal Symmetry.	Fix
9	H Corner	Adjusts Picture upper and below Horizontal Corner.After adjust the Parabola, adjust H corner vertical Line upper and below has nonlinear.	Adjust
10	H Shift	Adjusts Horizontal Position.	Adjust
11	Zoom 4:3 Para	Corrects the vertical linearity in Zoom mode of P-SIZE. The data depends on CRT (see data above)	Fix
12	4:3~16:9 Para	Corrects the vertical linearity in 16:9 mode of P-SIZE. The data differs according to CRT (see data above).	Adjust
13	Wide-4:3 Para	Corrects the vertical linearity in wide mode of P-SIZE. The data differs according to CRT (see data above).	Adjust
14	Wide-Zoom Para	Corrects the vertical linearity in wide mode of P-SIZE. The data differs according to CRT (see data above).	Adjust
15	Wide-Zoom2 Para	Corrects the vertical linearity in wide mode of P-SIZE. The data differs according to CRT (see data above).	Fix
16	Zoom1 Amp	Adjusts vertical amplitude in zoom1	Fix
17	Zoom2 Amp	Adjusts vertical amplitude in zoom2. Zoom2 mode is a manual zoom mode	Fix
18	TTX Position	Sets TTX Position.	Fix
19	D-TTX Posi	Double -TTX position.	Fix
20	RGB Shift	Adjusts RGB input signal Horizontal position	Fix
21	PIP Contrast	Adjusts PIP contrast.	Fix
22	PIP Tint	Adjusts PIP Tint. It is a function to control color phase of NTSC signal in PIP	Fix
23	PIP V.Move(VSPDEL)	PIP vertical sync pulse delay. When changing data, PIP jitters at two points. In this case, the PIP VSPDEL is set to the center between two points.	Fix
24	PIP PAL V.Pos	Adjusts Vertical position of PIP in PAL system.	Fix
25	PIP NTSC V.Pos	Adjusts Vertical position of PIP in NTSC system.	Fix
26	PIP H.Pos	Adjusts Horizontal Position of the PIP.	Fix
27	PIP BLKLG	PIP blanking level green(PIP low light white balance). It is used to control low light white balance in PIP	Fix

OSD	RANGE	INITIAL DATA							Remarks
		SIM-806HEW							
		32W8VH Philips Invar Flat	32W8VH Thomson Invar Flat	28C7VH Thomson Invar 2.0R	28C7H Thomson AK 2.0R	28C7H Philips Invar 2.0R	28W6 Thomson AK 2.0R	32W6V Thomson Invar 2.0R	
V Amp	0 ~ 255	80	92	85	129	129	84	80	GEOM
V Shift	0 ~ 255	104	111	108	110	110	117	116	GEOM
V Slope	0 ~ 255	125	130	130	130	130	130	115	FIX
V SC	0 ~ 255	117	225	200	200	200	200	150	FIX
H EW	0 ~ 255	125	215	205	187	187	172	232	GEOM
H Trapizium	0 ~ 255	85	113	91	114	114	108	107	GEOM
H Parabola	0 ~ 255	65	96	65	91	91	82	92	GEOM
H Corner L	0 ~ 255	45	121	118	118	118	118	73	FIX
H Corner L	0 ~ 255	88	122	136	136	136	136	92	FIX
H Shift	0 ~ 255	185	170	174	180	180	177	185	GEOM
BOW	0 ~ 255	132	130	123	123	123	121	123	GEOM
Amgle	0 ~ 255	129	140	129	129	129	132	129	GEOM
H Corner U6	0 ~ 255	176	76	140	133	133	135	159	GEOM
H Corner L6	0 ~ 255	176	78	136	129	129	126	158	GEOM
V Max	0 ~ 255	128	128	213	213	213	128	128	FIX
Zoom1 Amp	0 ~ 255	150	143	180	180	180	146	150	FIX
Zoom2 Amp	0 ~ 255	202	173	202	202	202	171	190	FIX
Zoom Trap	0 ~ 255	128	128	128	128	128	128	128	FIX
H-QEW	0 ~ 255	-	128	-	128	-	128	-	-
Zoom 4:3 Para	0 ~ 255	-	-	-	-	-	-	-	-
4:3~16:9 Para	0 ~ 255	-	-	-	-	-	-	-	-

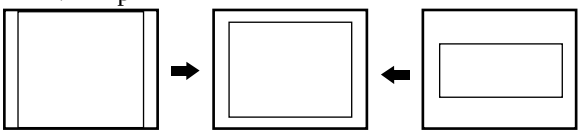
OSD	RANGE	INITIAL DATA						Remarks
		SIM-806HEW		SIM-806HMA/806HEA/806HC				
		29A8VH SED Invar Flat	28W8VH SED Invar Flat	29A7HP SED V-Before	29A7HP SED V-After	34A7HP Toshiba V-Before	34A7HP Toshiba V-After	
V Amp	0 ~ 255	128	104	148	106	133	124	GEOM
V Shift	0 ~ 255	153	109	149	141	151	125	GEOM
V Slope	0 ~ 255	133	107	134	134	134	125	FIX
V SC	0 ~ 255	210	175	206	206	189	210	FIX
H EW	0 ~ 255	109	161	183	195	179	215	GEOM
H Trapizium	0 ~ 255	108	124	110	105	95	92	GEOM
H Parabola	0 ~ 255	112	110	94	79	81	71	GEOM
H Corner L	0 ~ 255	125	108	130	130	145	134	FIX
H Corner L	0 ~ 255	118	111	133	143	150	159	FIX
H Shift	0 ~ 255	183	188	195	195	186	189	GEOM
BOW	0 ~ 255	123	127	127	127	127	127	GEOM
Amgle	0 ~ 255	129	127	128	128	128	128	GEOM
H Corner U6	0 ~ 255	126	138	131	131	127	133	GEOM
H Corner L6	0 ~ 255	136	140	130	130	134	126	GEOM
V Max	0 ~ 255	200	127	200	200	200	200	FIX
Zoom1 Amp	0 ~ 255	195	148	187	179	198	189	FIX
Zoom2 Amp	0 ~ 255	202	178	-	-	-	-	FIX
Zoom Trap	0 ~ 255	128	128	128	128	131	131	FIX
H-QEW	0 ~ 255	128	128	128	128	128	128	-
Zoom 4:3 Para	0 ~ 255	-	-	-	-	-	-	-
4:3~16:9 Para	0 ~ 255	-	-	5	5	5	5	-

OSD	RANGE	INITIAL DATA								Remarks
		SIM-812MA3			SIM-812MAD	SIM-806MA3		SIM-812EA1	SIM-806EI1	
		29" Flat/ DVD	CIS 29" Flat	CIS 29" Flat SKD CKD	29" Flat	34" Flat	29" Flat	29" Flat	29" Flat	
V Amp		-30/55	-30	-30	-45	7	-55	-55	-65	GEOM
V Shift		-7	-7	-7	-2	-22	-7	-7	-7	GEOM
V Slope		-3	-3	-3	-3	-7	-3	-3	-3	GEOM
V SC		-17	-17	-17	-17	-15	-17	-17	-15	FIX
H EW		30	30	30	30	-8	30	30	30	GEOM
H Trapizium		-47	-47	-47	-34	-22	-47	-47	-47	GEOM
H Parabola		-7	-7	-7	10	-6	-7	-7	-7	GEOM
H Symmetry		10/13	13	13	10	10	10	10	10	FIX
H Corner		23	23	23	-10	-8	23	23	23	GEOM
H Shift		13	13	13	27	-13	13	13	13	GEOM
PIP Contrast		8	8	8	10	7	8	8	10	FIX
PIP Tint		0	0	0	0	0	0	0	0	FIX
PIP V.Move(VSPDEL)		0	17	0	17	8	17	17	17	FIX
PIP PAL V.Pos		26	26	26	23	26	26	26	25	FIX
PIP NTSC V.Pos		23	23	23	20	23	23	23	25	FIX
PIP H.Pos		30	30	30	27	30	30	30	30	FIX
PIP BLKLG		6	6	6	3	6	6	6	7	FIX

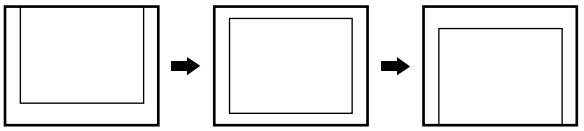
OSD	RANGE	SIM-806EI3		Remarks
		21" Flat	29" Normal	
V Amp		-51	-23	GEOM
V Shift		-32	-23	GEOM
V Slope		-4	-8	GEOM
V SC		-2	0	FIX
H EW		0	42	GEOM
H Trapizium		0	-40	GEOM
H Parabola		0	-60	GEOM
H Symmetry		0	13	FIX
H Corner		0	70	GEOM
H Shift		24	10	GEOM
PIP Contrast		15	15	FIX
PIP Tint		0	0	FIX
PIP V.Move(VSPDEL)		11	8	FIX
PIP PAL V.Pos		25	25	FIX
PIP NTSC V.Pos		25	25	FIX
PIP H.Pos		30	47	FIX
PIP BLKLG		7	7	FIX

4-8-2(B) SCREEN CHANGE (I2C BUS GEOMETRIC ADJUSTMENT)

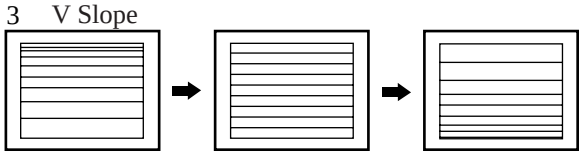
1 V Amp



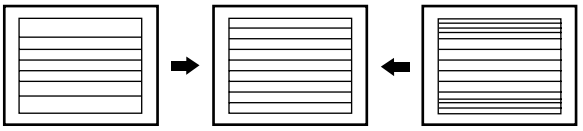
2 V Shift



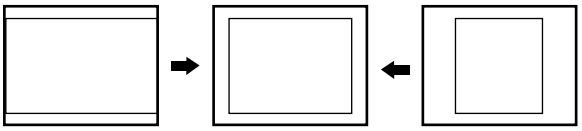
3 V Slope



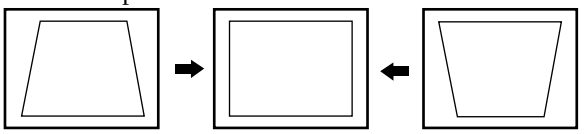
4 V SC



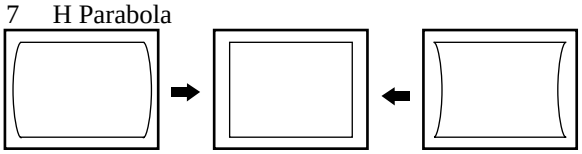
5 H EW



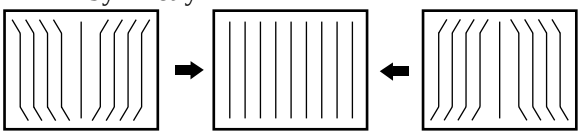
6 H Trapizium



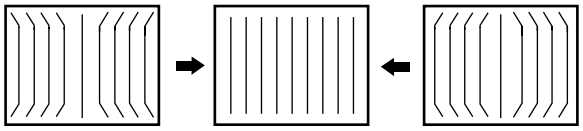
7 H Parabola



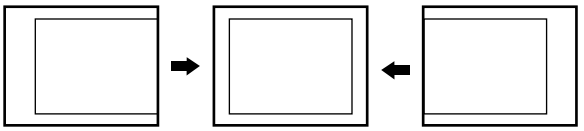
8 H Symmetry



9 H Corner



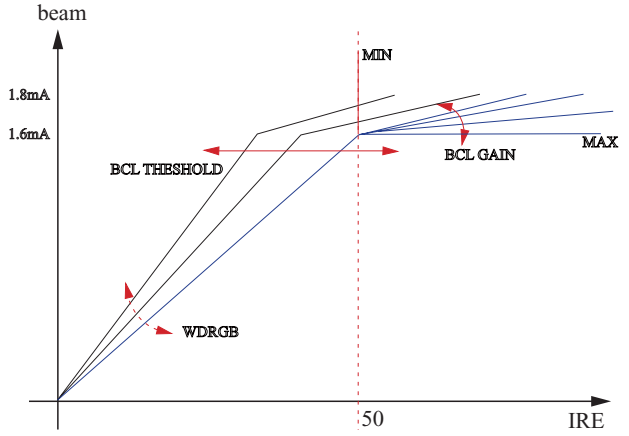
10 H Shift



4-8-2(C) VIDEO ADJUST 1

No.	OSD	Function	Remark
1	Red Cufoff	Adjusts the gain of red output of low light	Adjusts
2	Green Cutoff	Adjusts the gain of green output of low light.Fix this gain to 127.	Fix
3	Blue Cutoff	Adjusts the gain of blue output of low light.	Adjusts
4	Red Drive	Adjusts the gain of red output of high light.	Adjusts
5	Green Drive	Adjusts the gain of green output of high light. After "G2-Adjustment" and White Balance adjustments are complete,this data is fixed to 127..	Fix
6	Blue Drive	Adjusts the gain for blue output of high light.	Adjusts
7	Sub Bright	Adjust sub brightness level to set the low light luminance in Picture Standard mode.	Adjusts
8	Sub Contrast	Adjusts sub contrast level to set the high light luminance in Pictue Standard mode. Set the value of sub contrast to near 50. The user control "contrast" depends on this value.User contrast=[sub cont*2/100]If sub contrast data is 10, user contrast changes into 1/5step	Adjusts
9	Sub Color	Adjusts sub color level to set the gain for color in Picture Standard mode.	Fix
10	Sub Tint	Adjusts the sub tint level of NTSC color system.	Fix
11	BCL Threshold	Beam Current Limit threshold current if SENSE input used 0...-2048 BCL threshold current if RSW1 input used(max. ADC output ~2047))	Fix
12	BCL Gain	Beam Current Limit loop Gain	Fix
13	BCL Time	BCL time constant; 0 = off	Fix
14	BCL Time2	Teletext Contrast Level	Fix
15	BCL Bri Reduction	BCL Brighness Reduction	Fix
16	P.DK.YC Delay	PAL-D/K Y/C Delay	Fix
17	P.I.YC Delay	PAL-I Y/C Delay	Fix
18	P.L.YC Delay	PAL-L Y/C Delay	Fix
19	S.BG.YC Delay	SECAM-B/G Y/C Delay	Fix
20	S.DK.YC Delay	SECAM-D/K Y/C Delay	Fix
21	S.L.YC Delay	SECAM-L Y/C Delay	Fix
22	P.BG.YC Delay	PAL-B/G Y/C Delay	Fix
23	P.YC Delay	External PAL Y/C Delay	Fix
24	S.YC Delay	External SECAM Y/C Delay	Fix
25	N.YC Delay	External NTSC Y/C Delay	Fix
26	P.M.YC Delay	PAL-M Y/C DELAY	Fix
27	N.MYC Delay	NTSC-M YC DELAY	Fix

Note 4. **Beam Control Limit Characteristic**



OSD	RANGE	INITIAL DATA										Remarks
		SIM-806EW1(SEH)										
		21" 4:3 SED AK	21" 4:3 Tho AK	25" 4:3 SED AK	25" 4:3 SED AK	28" 4:3 Tho AK	28" 4:3 Phi/Tho Invar	29" 4:3 SED Flat	24" WIDE Phi AK	24" WIDE Phi Invar	24" WIDE Tho Invar	
Red Cufoff		116	127	117	117	118	128	127	119	127	127	W/B
Green Cutoff		127	127	127	133	127	127	127	127	127	127	Fix
Blue Cutoff		158	127	134	134	127	135	127	130	128	127	W/B
Red Drive		139	127	161	161	162	147	127	145	150	127	W/B
Green Drive		127	127	127	127	127	127	127	127	127	127	Fix
Blue Drive		89	127	83	83	110	105	127	131	127	127	W/B
Sub Bright		1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl	
		100	100	111	100	107	118	100	100	112	100	W/B
Sub Contrast		28 ftl	28 ftl	28 ftl	28 ftl	28 ftl	32 ftl	32 ftl	28 ftl	32 ftl	32 ftl	
		51	51	57	51	52	51	51	51	51	51	W/B
Sub Color		27	27	27	27	27	27	27	27	27	27	Fix
Sub Tint		80	80	80	80	80	80	80	80	80	80	Fix
BCL Threshold		30	30	27	27	35	55	40	26	85	40	Fix
BCL Gain		9	9	13	13	9	9	10	12	9	10	Fix
BCL Time		10	10	10	10	10	10	10	10	10	10	Fix
BCL Time2		90	90	90	90	90	90	90	90	90	90	Fix
BCL Bri Reduction		3	3	3	3	3	3	3	3	3	3	Fix
P.DK.YC Delay		6	6	6	6	6	6	6	6	6	6	Fix
P.I.YC Delay		6	6	6	6	6	6	6	6	6	6	Fix
P.L.YC Delay		7	7	7	7	7	7	7	7	7	7	Fix
S.BG.YC Delay		3	3	3	3	3	3	3	3	3	3	Fix
S.DK.YC Delay		5	5	5	5	5	5	5	5	5	5	Fix
S.L.YC Delay		8	8	8	8	8	8	8	8	8	8	Fix
P.BG.YC Delay		5	5	5	5	5	5	5	5	5	5	Fix
P.YC Delay		4	4	4	4	4	4	4	4	4	4	Fix
S.YC Delay		1	1	1	1	1	1	1	1	1	1	Fix
N.YC Delay		4	4	4	4	4	4	4	4	4	4	Fix

OSD	RANGE	SIM-806EW1(SEH)						SIM-806EW1(HQ)				Remarks
		28" WIDE Tho AK	28" WIDE Tho Invar	32" WIDE Tho Invar	28" WIDE SED Flat	32" WIDE Phi Flat	32" WIDE Tho Flat	29" Flat	21" Flat	25" Flat	21' LG Pin Free	
Red Cufoff	0 ~ 255	131	130	132	117	129	145	127	127	127	127	W/B
Green Cutoff	0 ~ 255	127	127	127	133	127	127	127	127	127	127	Fix
Blue Cutoff	0 ~ 255	133	131	128	134	127	107	127	127	127	122	W/B
Red Drive	0 ~ 255	147	164	157	161	168	146	127	127	127	149	W/B
Green Drive	0 ~ 255	127	127	127	127	127	127	127	127	127	127	Fix
Blue Drive	0 ~ 255	121	106	86	127	110	116	127	127	127	124	W/B
Sub Bright		1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl	1.2 ftl					
	0 ~ 200	93	105	100	100	109	117	100	100	100	149	W/B
Sub Contrast		28 ftl	32 ftl	32 ftl	32 ftl	32 ftl	32 ftl					
	0 ~ 63	55	51	51	51	52	51	45	45	45	38	W/B
Sub Color	0 ~ 27	27	27	27	27	27	27	27	27	27	27	Fix
Sub Tint	0 ~ 127	80	80	80	80	80	80	80	80	80	80	Fix
BCL Threshold	0 ~ 255	33	35	43	46	48	49	40	59	40	59	Fix
BCL Gain	0 ~ 15	9	/8	/9	12	10	13	7	8	7	8	Fix
BCL Time	0 ~ 15	10	10	10	10	10	10	10	13	10	15	Fix
BCL Time2	0 ~ 15	90	90	90	90	90	90	-	-	-	-	Fix
BCL Bri Reduction	0 ~ 255	3	3	3	3	3	3	-	-	-	-	Fix
P.DK.YC Delay	0 ~ 8	6	6	6	6	6	6	7	7	7	7	Fix
P.I.YC Delay	0 ~ 8	6	6	6	6	6	6	7	7	7	7	Fix
P.L.YC Delay	0 ~ 8	7	7	7	7	7	7	5	5	5	5	Fix
S.BG.YC Delay	0 ~ 8	3	3	3	3	3	3	3	3	3	3	Fix
S.DK.YC Delay	0 ~ 8	5	5	5	5	5	5	5	5	5	5	Fix
S.L.YC Delay	0 ~ 8	8	8	8	8	8	8	5	5	5	5	Fix
P.BG.YC Delay	0 ~ 8	5	5	5	5	5	5	3	3	3	3	Fix
P.YC Delay	0 ~ 8	4	4	4	4	4	4	4	4	4	4	Fix
S.YC Delay	0 ~ 8	1	1	1	1	1	1	1	1	1	1	Fix
N.YC Delay	0 ~ 8	4	4	4	4	4	4	4	4	4	4	Fix
S.I YC Delay	0 ~ 8	-	-	-	-	-	-	7	7	7	7	Fix
TTX Contrast	0 ~ 255		-	-	-	-	-	90	120	90	120	Fix

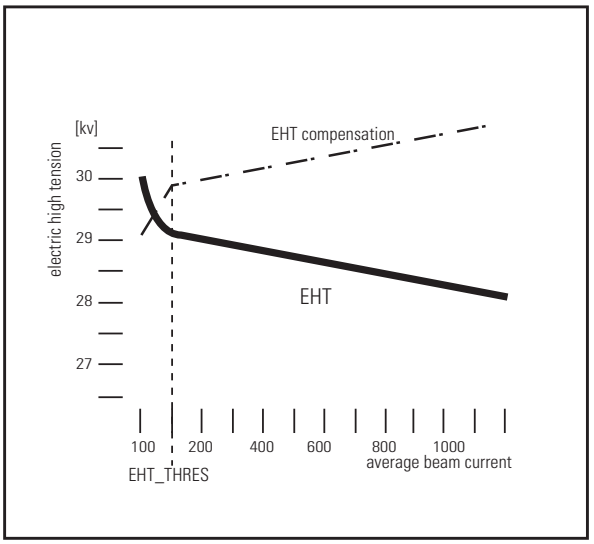
OSD	RANGE	INITIAL DATA								Remarks
		SIM-812MA3			SIM-812MAD	SIM-806MA3		SIM-812EA1	SIM-806EI1	
		29" Flat/ DVD	CIS 29" Flat	CIS 29" Flat SKD CKD	29" Flat	34" Flat	29" Flat	29" Flat	29" Flat	
Red Cufoff	0 ~ 255	127	127	127	127	127	127	127	127	W/B
Green Cutoff	0 ~ 255	127	127	127	127	127	127	127	127	Fix
Blue Cutoff	0 ~ 255	127	127	127	127	127	127	127	127	W/B
Red Drive	0 ~ 255	127	127	127	127	127	127	127	127	W/B
Green Drive	0 ~ 255	127	127	127	127	127	127	127	127	Fix
Blue Drive	0 ~ 255	127	127	127	127	127	127	127	127	W/B
Sub Bright	0 ~ 200	100	100	100	100	100	100	100	100	W/B
Sub Contrast	0 ~ 63	45	45	45	45	45	45	45	45	W/B
Sub Color	0 ~ 27	27	27	27	27	27	27	27	27	Fix
Sub Tint	0 ~ 127	80	80	80	40	40	40	40	30	Fix
BCL Threshold	0 ~ 255	65	65	65	65	65	65	65	65	Fix
BCL Gain	0 ~ 15	8	8	8	8	8	8	8	8	Fix
BCL Time	0 ~ 15	9	9	9	6	6	8	8	8	Fix
TTX Contrast	0 ~ 255	90	90	90	90	90	90	90	-	Fix
P.YC Delay	0 ~ 8	4	4	4	4	4	4	4	4	Fix
S.YC Delay	0 ~ 8	1	1	1	1	1	1	1	1	Fix
N.YC Delay	0 ~ 8	4	4	4	4	4	4	4	4	Fix
P.BG YC Delay	0 ~ 8	3	3	3	3	3	3	3	3	Fix
P.DK YC Delay	0 ~ 8	6	6	6	6	6	6	6	6	Fix
P.I YC Delay	0 ~ 8	6	6	6	6	6	6	6	6	Fix
S.BG YC Delay	0 ~ 8	1	1	1	1	1	1	1	1	Fix
S.DK YC Delay	0 ~ 8	5	5	5	5	5	5	5	5	Fix
S.I YC Delay	0 ~ 8	8	8	8	8	8	8	8	8	Fix
P.M.YC Delay	0 ~ 8	7	7	7	7	7	7	7	7	Fix
N.MYC Delay	0 ~ 8	3	3	3	3	3	3	3	3	Fix

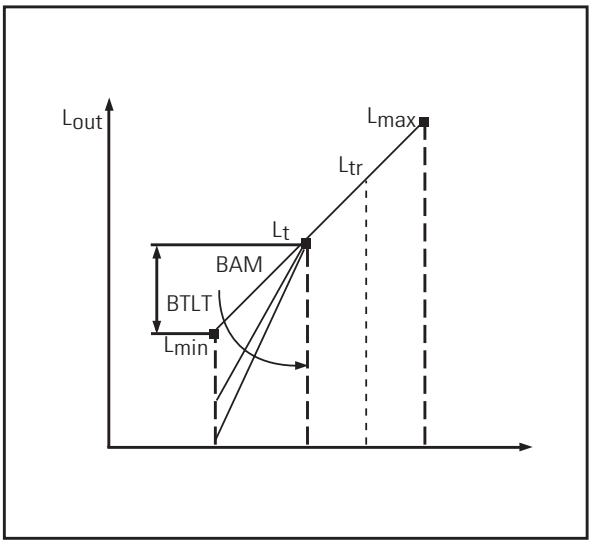
OSD	RANGE	SIM-806EI3		Remarks
		29" Normal	21' Flat	
Red Cufoff	0 ~ 255	127	127	W/B
Green Cutoff	0 ~ 255	127	127	Fix
Blue Cutoff	0 ~ 255	127	127	W/B
Red Drive	0 ~ 255	127	127	W/B
Green Drive	0 ~ 255	127	127	Fix
Blue Drive	0 ~ 255	127	127	W/B
Sub Bright	0 ~ 200	100	100	W/B
Sub Contrast	0 ~ 63	45	45	W/B
Sub Color	0 ~ 27	27	27	Fix
Sub Tint	0 ~ 127	30	30	Fix
BCL Threshold	0 ~ 255	67	62	Fix
BCL Gain	0 ~ 15	9	9	Fix
BCL Time	0 ~ 15	10	13	Fix
TTX Contrast	0 ~ 255	-	-	Fix
P.YC Delay	0 ~ 8	4	4	Fix
S.YC Delay	0 ~ 8	1	1	Fix
N.YC Delay	0 ~ 8	4	4	Fix
P.BG YC Delay	0 ~ 8	3	3	Fix
P.DK YC Delay	0 ~ 8	6	6	Fix
P.I YC Delay	0 ~ 8	6	6	Fix
S.BG YC Delay	0 ~ 8	1	1	Fix
S.DK YC Delay	0 ~ 8	5	5	Fix
S.I YC Delay	0 ~ 8	8	8	Fix
P.M.YC Delay	0 ~ 8	7	7	Fix
N.MYC Delay	0 ~ 8	3	3	Fix

4-8-2(D) VIDEO 2 ADJUST

No.	OSD	Range	Function	Remark
1	B stretch-BTHR	0 ~255	Black stretch thresholdLuminance peaking filter coring.	**Fix**
2	B stretch-BTLT	0 ~10	BLACK stretch tilt position	**Fix**
3	B stretch-BAM	0 ~20	BLACK stretch amountAdjusts RGB input signal contrast	**Fix**
4	Coring	0 ~127	Luminance peaking filter, coring level	**Fix**
5	NR Off Value	0 ~63	Luminance peaking filter coring.	**FiX**
6	Melody Volume	0 ~255	Sets the level of melody volume in Picture ON. Differently controlled according to buyer and area.	**Fix**
7	RGB Bright	0 ~255	Adjust RGB input signal brightness	**Fix**
8	RGB Contrast	0 ~255	Adjust RGB input signal contrast	**Fix**
9	EHT Time	0 ~255	Electronics high tension time. According to change of Beam, EHT vertical correction time.	**Fix**
10	EHT Vertical	0 ~255	EHT compensation coefficent vertical.	**Fix**

Note 5. **EHT compensation Characteristic**





OSD	RANGE	INITIAL DATA						Remarks
		SIM-806EW1(SEH)						
		21" 4:3 SED/Tho AK	25" 4:3 SED/Tho AK	28" 4:3 Tho AK	28" 4:3 Phi/Tho Invar	29" 4:3 SED Flat	24" WIDE Phi AK	
B stretch-BTHR	0 ~ 55	0	0	0	0	0	0	Fix
B stretch-BTLT	0 ~ 15	0	0	0	0	0	0	Fix
B stretch-BAM	0 ~ 31	0	0	0	0	0	0	Fix
Coring	0 ~ 31	25	25	25	25	25	25	Fix
NR Off Value	0 ~ 10	3	3	3	3	3	3	Fix
Melody Volume	0 ~ 20	8	8	8	8	8	8	Fix
RGB Bright	0 ~ 255	45	45	45	45	45	45	Fix
RGB Contrast	0 ~ 80	0	0	0	0	0	0	Fix
EHT Time	0 ~ 255	0	0	0	0	0	0	Fix
EHT Compesation	-	90	30	30	30	90	140	Fix
VSU	96 ~ 111	110	110	110	110	110	110	Fix
OSD	RANGE	SIM-806EW1(SEH)						Remarks
		24" WIDE Phi/Tho AK	28" WIDE Phi/Tho AK	28" WIDE Phi/Tho Invar	32" WIDE Phi/Tho Invar	28" WIDE Phi/SED Flat	32" WIDE Phi/Tho Flat	
B stretch-BTHR	0 ~ 55	0	0	0	0	0	0	Fix
B stretch-BTLT	0 ~ 15	0	0	0	0	0	0	Fix
B stretch-BAM	0 ~ 31	0	0	0	0	0	0	Fix
Coring	0 ~ 31	25	25	25	25	25	25	Fix
NR Off Value	0 ~ 10	3	3	3	3	3	3	Fix
Melody Volume	0 ~ 20	8	8	8	8	8	8	Fix
RGB Bright	0 ~ 255	45	45	45	45	45	45	Fix
RGB Contrast	0 ~ 80	0	0	0	0	0	0	Fix
EHT Time	0 ~ 255	0	0	0	0	0	0	Fix
EHT Compesation	-	30	95	95	90	90	90	Fix
VSU	96 ~ 111	110	110	110	110	110	110	Fix

OSD	RANGE	INITIAL DATA						Remarks
		SIM-806EW1(HQ)				SIM-812MA3		
		29" Flat	21" Flat	25" Flat	21" LG Pin Free	29" Flat/DVD	CIS 29" Flat	
B stretch-BTHR	0 ~ 55	0	0	0	50	50	50	Fix
B stretch-BTLT	0 ~ 15	0	0	0	8	8	8	Fix
B stretch-BAM	0 ~ 31	0	0	0	4	4	4	Fix
Coring	0 ~ 31	25	25	25	31	25	20	Fix
NR Off Value	0 ~ 10	3	3	7	7	-	-	Fix
Melody Volume	0 ~ 20	8	8	8	8	-	-	Fix
RGB Bright	0 ~ 255	45	45	45	45	45	45	Fix
RGB Contrast	0 ~ 80	0	0	15	0	0	0	Fix
EHT Time	0 ~ 255	0	0	0	0	0/3	0	Fix
EHT Compesation	-	30	95	90	90	-	-	Fix
VSU	96 ~ 111	110	110	100	100	-	-	Fix
EHT Vertical	0 ~ 255	-	-	-	-	90	90	

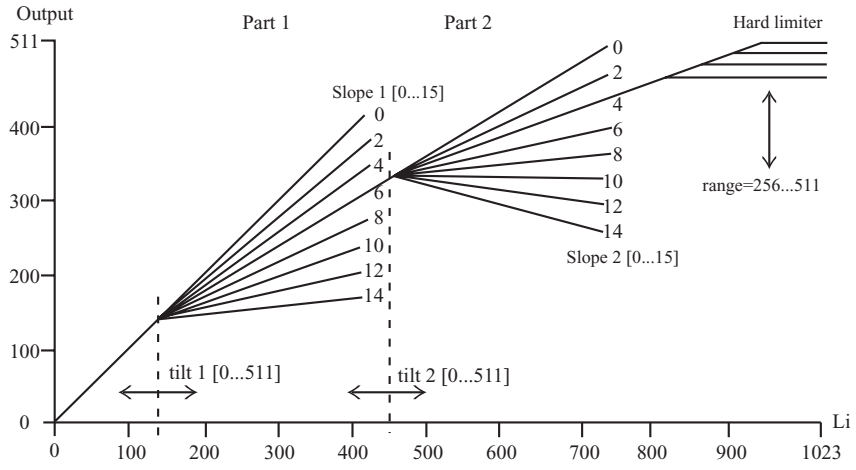
OSD	RANGE	SIM-812MA3	812MAD	SIM-806MA3		SIM-812EA1	SIM-806EI1	Remarks
		CIS 29" Flat SKD CKD	29" Flat	34" Flat	29" Flat	29" Flat	29" Flat	
B stretch-BTHR	0 ~ 55	50	50	50	50	50	50	Fix
B stretch-BTLT	0 ~ 15	8	8	8	8	8	8	Fix
B stretch-BAM	0 ~ 31	4	4	4	4	4	4	Fix
Coring	0 ~ 31	20	25	25	25	25	25	Fix
NR Off Value	0 ~ 10	-	-	-	-	-	-	Fix
Melody Volume	0 ~ 20	-	-	-	-	-	-	Fix
RGB Bright	0 ~ 255	45	45	80	45	45	50	Fix
RGB Contrast	0 ~ 80	0	0	24	0	0	0	Fix
EHT Time	0 ~ 255	0	3	3	3	3	3	Fix
EHT Compesation	-	-	-	-	-	-	-	Fix
VSU	96 ~ 111	-	-	-	-	-	-	Fix
EHT Vertical	0 ~ 255	90	90	60	90	90	90	Fix

OSD	RANGE	SIM-806EI3		Remarks
		29" Normal	21" Flat	
B stretch-BTHR	0 ~ 55	50	50	Fix
B stretch-BTLT	0 ~ 15	8	8	Fix
B stretch-BAM	0 ~ 31	4	4	Fix
Coring	0 ~ 31	31	31	Fix
NR Off Value	0 ~ 10	-	-	Fix
Melody Volume	0 ~ 20	-	-	Fix
RGB Bright	0 ~ 255	50	50	Fix
RGB Contrast	0 ~ 80	40	40	Fix
EHT Time	0 ~ 255	3	3	Fix
EHT Compesation	-	-	-	Fix
VSU	96 ~ 111	-	-	Fix
EHT Vertical	0 ~ 255	60	90	Fix

4-8-2(E) VIDEO 3 ADJUST

No.	OSD	Function	Remark
1	Peak Threshold	White peak level threshold	Fix
2	Soft Limit Slope B	Refer to picture below	Fix
3	Hard Limit	Refer to picture below	Fix
4	Peak Video Ref	White peak level threhold reference	Fix
5	Peak Video Gain	White peak level threshild gain	FiX
6	ACC Ref=(PAL/NTSC)	Auto color control gain(PAL/NTSC)	Fix
7	ACCR(SECAM)	Auto color control gain(SECAM)	Fix
8	Gain1(Video)	Velocity video gain	Fix
9	Delay1(Video)	Velocity video delay	Fix
10	Velocity Limit	Velocity limit	Fix
11	Velocity Delay	Velocity delay	Fix
12	Velocity Coring	Velocity frequency coring	Fix
13	RGB Shift	Adjust RGB input signal Horizontal position	Fix
14	HB START	Horizontal blainking start	Fix
15	HB STOP	Horizontal blainking stop	FiX
16	2H CombFilter	Comb filter on/off (0:Comb filter off 1:Comb filter on) VDP3108 has no function of Comb filter. In VDP3112B/VDP3130Y/VDP3120B, Set 'on'.	Fix
17	NR Off Value	Adjusts Digital NR off value	Fix
18	Color hys(SECAM)	Color killing hysteresys(SECAM)	Fix
19	Color hys(PAL)	Color killing hysteresys(PAL)	Fix

Note 6. **Soft Limit & Hard Limit**



Calcuation Example for the Softlimiter Input Amplitude. (The real signal procesing in the limiter is 2 bit more than descrbed here)

Y Input	16...235(ITUR)
Black Level	16(constant)
Contrast	63
Dig. Brightness	20
BLE	Off
Peaking	Off

Limiter input signal.
(Yin-Black Level)·Contr/32+Brightn.
(235-16)·63/32+20=451

OSD	RANGE	INITIAL DATA						Remarks
		SIM-806EW1(SEH)						
		21" 4:3 SED/Tho AK	25" 4:3 SED/Tho AK	28" 4:3 Tho AK	28" 4:3 Phi/Tho Invar	29" 4:3 SED Flat	24" WIDE Phi AK	
Peak Threshold	0 ~ 255	100	100	100	100	100	100	Fix
Soft Limit Slope B	0 ~ 15	8	8	8	8	8	8	Fix
Hard Limit	0 ~ 4	255	255	255	255	255	255	Fix
Peak Video Ref	0 ~ 255	1	1	1	1	1	1	Fix
Peak Video Gain	0 ~ 5	2	2	2	2	2	2	Fix
ACC Ref=(PAL/NTSC)	0 ~ 40	20	20	20	20	20	20	Fix
ACCR(SECAM)	0 ~ 39	20	20	20	20	20	20	Fix
Gain1(Video)	0 ~ 31	63	63	63	63	63	63	Fix
Delay1(Video)	0 ~ 15	1	1	1	1	1	1	Fix
Velocity Limit	0 ~ 127	63	63	63	63	63	63	Fix
Velocity Delay	0 ~ 15	7	7	7	7	7	7	Fix
Velocity Coring	0 ~ 15	2	2	2	2	2	2	Fix
OSD	RANGE	SIM-806EW1(SEH)						Remarks
		24" WIDE Phi/Tho AK	28" WIDE Phi/Tho AK	28" WIDE Phi/Tho Invar	32" WIDE Phi/Tho Invar	28" WIDE Phi/SED Flat	32" WIDE Phi/Tho Flat	
Peak Threshold	0 ~ 255	100	100	100	100	100	100	Fix
Soft Limit Slope B	0 ~ 15	8	8	8	8	8	8	Fix
Hard Limit	0 ~ 4	255	255	255	255	255	255	Fix
Peak Video Ref	0 ~ 255	1	1	1	1	1	1	Fix
Peak Video Gain	0 ~ 5	2	2	2	2	2	2	Fix
ACC Ref=(PAL/NTSC)	0 ~ 40	20	20	20	20	20	20	Fix
ACCR(SECAM)	0 ~ 39	20	20	20	20	20	20	Fix
Gain1(Video)	0 ~ 31	63	63	63	63	63	63	Fix
Delay1(Video)	0 ~ 15	1	1	1	1	1	1	Fix
Velocity Limit	0 ~ 127	63	63	63	63	63	63	Fix
Velocity Delay	0 ~ 15	7	7	7	7	7	7	Fix
Velocity Coring	0 ~ 15	2	2	2	2	2	2	Fix
OSD	RANGE	SIM-806EW1(HQ)				SIM-812MA3		Remarks
		29" Flat	21" Flat	25" Flat	21" LG Pin Free	29" Flat/DVD	CIS 29" Flat	
Peak Threshold	0 ~ 255	185	255	185	255	185	185	Fix
Soft Limit Slope B	0 ~ 15	4	4	4	4	5	5	Fix
Hard Limit	0 ~ 4	160	255	160	255	180	180	Fix
Peak Video Ref	0 ~ 255	1	0	1	0	0	0	Fix
Peak Video Gain	0 ~ 5	3	0	3	0	0	0	Fix
ACC Ref=(PAL/NTSC)	0 ~ 40	20	20	20	20	33	33	Fix
ACCR(SECAM)	0 ~ 39	20	20	20	20	39	39	Fix
Gain1(Video)	0 ~ 31	11	11	11	11	31	31	Fix
Delay1(Video)	0 ~ 15	3	3	3	3	3	3	Fix
Velocity Limit	0 ~ 127	74	74	74	74	127	127	Fix
Velocity Delay	0 ~ 15	7	7	7	7	7	7	Fix
Velocity Coring	0 ~ 15	10	10	10	10	3	3	Fix
RGB Shift	0 ~ 255	-	-	-	-	-	109	Fix
HB START	0 ~ 3	121	121	121	121	121/117	121	Fix
HB STOP	0 ~ 255	173	173	173	173	173/168	173	Fix
2H CombFilter	0 ~ 1	-	-	-	-	1	1	Fix
NR Off Value	0 ~ 10	-	-	-	-	0	0	Fix
Color hys(SECAM)	0 ~ 255	-	-	-	-	166	166	Fix
Color hys(PAL)	0 ~ 255	-	-	-	-	200	200	Fix

OSD	RANGE	INITIAL DATA						Remarks
		SIM-812MA3	812MAD	SIM-806MA3		SIM-812EA1	SIM-806EI1	
		CIS 29" Flat SKD CKD	29" Flat	34" Flat	29" Flat	29" Flat	29" Flat	
Peak Threshold	0 ~ 255	185	185	185	185	185	185	Fix
Soft Limit Slope B	0 ~ 15	5	5	5	5	5	5	Fix
Hard Limit	0 ~ 4	180	180	180	180	180	180	Fix
Peak Video Ref	0 ~ 255	0	0	0	0	0	0	Fix
Peak Video Gain	0 ~ 5	0	0	0	0	0	0	Fix
ACC Ref=(PAL/NTSC)	0 ~ 40	33	33	39	33	33	33	Fix
ACCR(SECAM)	0 ~ 39	39	39	33	39	39	39	Fix
Gain1(Video)	0 ~ 31	31	31	31	31	31	31	Fix
Delay1(Video)	0 ~ 15	3	3	3	3	3	3	Fix
Velocity Limit	0 ~ 127	127	127	127	127	127	127	Fix
Velocity Delay	0 ~ 15	7	7	7	7	7	7	Fix
Velocity Coring	0 ~ 15	3	3	3	3	3	3	Fix
RGB Shift	0 ~ 255	-	-	-	-	-	-	Fix
HB START	0 ~ 3	121	117	115	117	117	117	Fix
HB STOP	0 ~ 255	173	168	169	168	168	168	Fix
2H CombFilter	0 ~ 1	1	1	1	1	1	1	Fix
NR Off Value	0 ~ 10	0	0	0	0	0	0	Fix
Color hys(SECAM)	0 ~ 255	166	166	166	166	-	-	Fix
Color hys(PAL)	0 ~ 255	200	-	200	200	-	-	Fix

OSD	RANGE	SIM-806EI3		Remarks
		29" Normal	21" Flat	
Peak Threshold	0 ~ 255	255	255	Fix
Soft Limit Slope B	0 ~ 15	4	4	Fix
Hard Limit	0 ~ 4	255	255	Fix
Peak Video Ref	0 ~ 255	0	0	Fix
Peak Video Gain	0 ~ 5	0	0	Fix
ACC Ref=(PAL/NTSC)	0 ~ 40	33	20	Fix
ACCR(SECAM)	0 ~ 39	21	21	Fix
Gain1(Video)	0 ~ 31	11	11	Fix
Delay1(Video)	0 ~ 15	3	3	Fix
Velocity Limit	0 ~ 127	74	74	Fix
Velocity Delay	0 ~ 15	7	7	Fix
Velocity Coring	0 ~ 15	10	10	Fix
RGB Shift		-	-	Fix
RGB START		117	117	Fix
RGB STOP		168	168	Fix
2H Comb Fiter		1	1	Fix
NR Off Value		3	3	Fix
Color hys(SECAM)		-	-	Fix
Color hys(PAL)		-	-	Fix

4-8-2(F) OPTION

No.	OSD	Function
1	System	Select the Broadcasting System - CZ : PAL/SECAM-B/G,D/K,I,L CW : It is added SECAM-L function in CZ
2	AV by CH Key	On : It can select AV Mode for CH key in case that the number of Pannel key is 5. Off : In case that it is AV key in pannel
3	Sound	Select the sound system, for example A2-Stereo/Nicam,V-dolby,Mono, L-Stereoln case of using MSP3411G and V-Dolby MSP3400D/MSP3410, select A2-Stereo/Nicam
4	CRT	Select P-Size Mode
5	AV Mode	Select EXT Jack (RCA/SCARTS-1,2,S-VIDEO,DVD)
6	Speaker	Select the Speaker . If Dome speaker, Select 'Dome Spk'. If Non Dome speaker, select 'Non Dome Spk
7	TTX TOP	Select TOP TTX On/Off
8	X-Ray	Select X-Ray On/Off (On : USA, Of f: Other)
9	Tilt Control	Select Tilt On/Off
10	Auto FM	On : In Nicam Broadcasting Channel, If it happened 'Nicam Ident check bits error'or 'Sound Noise', Set Auto FM Mode. Of f :In Nicam Broadcasting Channel, Keep Nicam Mode till Nicam Ident Check bits are perfectly Off .
11	Text Language	West Europe : English/German/Skandinavian/Italian/French/Spainsh/Czech East Europe : Polish/Czech/Rumanian/Slovenian/Croatian//French/Skandinavian/German/Italian Russian : Russian/Ukranian/Estonian/Czech/German/Lettish/English Greek-Turkey : English/Turkey/Greek/French/Skandinavian/German/Spainsh/Italian/ Arabic : English/Arabic/French Farsi : English/Farsi/French Arab-Hebrew : Arabic/Hebrew
12	AKB	AKB(Auto kined bias) On/Off
13	Language	Select OSD Language Arab : English/Arabic/French/Pakistan≤î Libya : English/French/Libya≤îIran : English/French/Persia≤î/Turkey CIS : English/Russian
14	PIP	Select 1T-PiP, 2T-PIP or PIP Off
15	LNA	If LNA(Low Noise Amplitude) Tuner, Set 'On'. : TCLS
16	Equalizer	Equalizer ON/OFF.
17	High Deviate	On :If it happened 'Sound click' Noise cause that the input signal from TV Station has been over modulated,Set 'ON'. Off : Normal input Signal
18	TTX On/OFF	Select TTX On/Off

Note 6. **Sound IC & System**

Sound	IC601
A2/NICAM	MSP3400D, MSP3410D, MSP3400G
V-DOLBY	MSP3411G
Mono	Not used this mode for KS3A Chassis
L-Stereo	

OSD	INITIAL DATA								
	SIM-806EW1(SEH)			SIM-806EW1(HQ)					
	4:3 WIDE MODEL	28" WIDE Flat	32" WIDE Flat	CW29A7	CZ29A6	CZ29A7	CZ29A6	CZ21A8	CW21A8
System	Option	CW	CW	CW	CZ	CZ	CZ	CZ	CZ
AV by CH Key	On	On	On	Off	Off	Off	Off	Off	On
Sound	Option	V.Dolby	V.Dolby	A2/NICAM	A2/NICAM	A2/NICAM	V.Dolby	A2/NICAM	A2/NICAM
CRT	4:3	Wide	Wide	4:3	4:3	4:3	4:3	4:3	4:3
AV Mode	2Scart	2Scart	2Scart	2Scart	2Scart	2Scart+S	2Scart	2Scart	2Scart
Speaker	Non	Non	Non	Dome spk	Dome spk	Dome spk	Dome spk	Non	Non
TTX TOP	Off	Off	Off	Off	Off	Off	Off	Off	Off
X-Ray	Off	Off	Off	Off	Off	Off	Off	Off	Off
Tilt Control	Off	On	On	On	On	On	On	Off	Off
Auto FM	On	On	On	On	On	On	On	On	On
AKB	On	On	On	On	On	On	On	On	On
Text Language	West	West	West	-	-	-	-	-	-

OSD	SIM-812MA3						
	29A5WT8X	29A6PF8X	29K3WT8X	29A6WT8X	29A6PF8X	29A6PFBX	29A6WT8X
Language	Arab	Iran	CIS	CIS	Arab	Arab	Iran
Sound	V.Dolby	V.Dolby	A2/Nicam	A2/Nicam	V.Dolby	V.Dolby	V.Dolby
CRT	4:3	4:3	4:3	4:3	4:3	4:3	4:3
AV Mode	2RCA+S	2RCA+S	2Scart+S	2Scart+S	2RCA+S	2RCA+S+D	2Scart+S
X-Ray	Off	Off	Off	Off	Off	Off	Off
Tilt Control	On	On	On	On	On	On	On
Auto FM	Off	Off	Off	Off	Off	Off	Off
PIP	Off	2-Tuner	Off	Off	2-Tuner	2-Tuner	Off
Txt Language	Arabic	Farsi	Russian	Russian	Arabic	Arabic	Reek-Turkey
LNA	Off	On	On	On	On	On	Off
Equalizer	On	On	On	On	On	On	On
High Deviate	On	On	Off	Off	On	On	On
TTX On/Off	On	On	On	On	On	On	On
AV by CH Key	On	Off	On	Off	Off	Off	Off

OSD	SIM-812MA3				SIM-806MA3	
	29A5WTBX	29A6PFBX	29A5PF8C	29A6NTBX	34D2GNBX	29A6GWBX
Language	Arab	Iran	Arab	Iran	Iran	Arab
Sound	V.Dolby	V.Dolby	V.Dolby	V.Dolby	A2/Nicam	Virtual Dolby
CRT	4:3	4:3	4:3	4:3	4:3	4:3
AV Mode	2RCA+S+D	2RCA+S+D	2Scart+S	2RCA+S+D	2RCA+D	2RCA+S+D
X-Ray	Off	Off	Off	On	On	Off
Tilt Control	On	On	On	On	Off	On
Auto FM	Off	Off	Off	Off	Off	Off
PIP	Off	2-Tuner	2-Tuner	Off	1-Tuner	1-Tuner
Txt Language	Arabic	Farsi	Arabic	East Euripe	West Europe	Arabic
LNA	Off	On	On	Off	Off	Off
Equalizer	On	On	On	On	On	On
High Deviate	On	On	On	Off	On	On
TTX On/Off	On	On	On	On	Off	On
AV by CH Key	On	Off	On	Off	On	Off

OSD	INITIAL DATA					
	SIM-812EA1					
	29A7NTBX	29A5WBX	29A5NTBX	29K3WTBX	29K3WBX	29A7PFBX
Language	ESASIA	ESASIA	ESASIA	ESASIA	ESASIA	ESASIA
Sound	V.Dolby	V.Dolby	V.Dolby	A2/Nicam	A2/Nicam	V.Dolby
CRT	4:3	4:3	4:3	4:3	4:3	4:3
AV Mode	2RCA+S+D	2RCA+S+D	2RCA+S+D	2RCA+S+D	2RCA+S+D	2RCA+S+D
X-Ray	Off	Off	Off	Off	Off	Off
Tilt Control	On	On	On	On	On	On
Auto FM	Off	Off	Off	Off	Off	Off
PIP	Off	Off	Off	Off	Off	2-Tuner
Txt Language	West	West	West	West	West	West
LNA	Off	Off	Off	Off	Off	On
Equalizer	On	On	On	On	On	On
High Deviate	Off	Off	Off	Off	Off	Off
TTX On/Off	On	Off	On	Off	Off	On
AV by CH Key	Off	On	On	Off	On	Off
AKB	-	-	-	-	-	-

OSD			SIM-812MAD			SIM-806E1
	29A5PFBX	29A6NTBX	29A7PNBX	29A6MT8X	29A5MT8X	29A7PFBX
Language	ESASIA	ESASIA	ESASIA	CIS	CIS	-
Sound	V.Dolby	V.Dolby	V.Dolby	A2/Nicam	A2/Nicam	V.Dolby
CRT	4:3	4:3	4:3	4:3	4:3	4:3
AV Mode	2RCA+S+D	2RCA+S+D	2RCA+S+D	2Scart+S	2Scart+S	2RCA+S+D
X-Ray	Off	Off	Off	Off	Off	Off
Tilt Control	On	On	On	On	On	On
Auto FM	Off	Off	Off	Off	Off	On
PIP	2-Tuner	Off	2-Tuner	2T-D/W	2T-D/W	2-Tuner
Txt Language	West	West	West	Russian	Russian	-
LNA	On	Off	On	On	On	On
Equalizer	On	On	On	On	On	On
High Deviate	Off	Off	Off	Off	Off	On
TTX On/Off	On	On	Off	On	On	-
AV by CH Key	On	Off	On	Off	On	Off
AKB	-	-	-	-	-	On

OSD	SIM-806EI3		OSD	SIM-806EI3	
	29" Normal	21" Flat		29" Normal	21" Flat
Language	-	-	Woofer	On	On
Sound	A2/Nicam	A2/Nicam	Pre Chanlle	On	On
CRT	4:3	4:3	Volume Table	Large	Large
AV Mode	2RCA	2RCA + D	Dynamic Vol	On	ON
X-Ray	Off	Off	Woofer Table	Small	Small
Tilt Control	Off	Off	Amp Mute	Off	Off
Auto FM	On	On			
PIP	2-Tuner	2-Tuner			
Txt Language	-	-			
LNA	On	On			
Equalizer	On	On			
High Deviate	On	On			
TTX On/Off	-	-			
AV by CH Key	On	On			
AKB	Off	On			

4-8-2(G) G2-ADJUST

No.	OSD	Function	Remark
1	MRCR	Measurement Result Resisters; Cutoff/Leakage Red	Measure data
2	MRCG	Measurement Result Resisters; Cutoff/Leakage Green	Measure data
3	MRCB	Measurement Result Resisters; Cutoff/Leakage Blue	Measure data
4	MRWDG	Measurement Result Resisters; White Drive	Measure data
5	IBRM	Internal Brightness, Measurement (0 .. 511), the center value is 256, the brightness for measurement can be set to measure at higher cutoff current. The measurement brightness is independent of the drive values."	G2 Voltage of CRT
6	WDRV	White Drive Measurement Control; RGB Values for White Drive Beam Current Measurement	Fix
7	CDL	Cathode Drive Level Uses the same register as the RGB drive in Video adjust-1.	Fix
8	COL(G)	Cutoff Level Red Uses the same register as the RED cutoff in Video adjust-1.	Fix
9	COL(G)	Cutoff Level GreenUses the same register as the GREEN cutoff in Video adjust-1.	Fix
10	COL(B)	Cutoff Level BlueUses the same register as the BLUE cutoff in Video adjust-1.	Fix

After setting COL/CDL/WDRV/IBRM to each spec of models, adjust the screen VR till the color of MRCR/MRCG/MRCB/MRWDG becomes green

OSD	RANGE	INITIAL DATA									Remarks
		SIM-806EW1(SEH)									
		21" 4:3 SED AK	21" 4:3 Tho AK	25" 4:3 SED AK	25" 4:3 Tho AK	28" 4:3 Tho Ak	29" 4:3 SED Flat	24" WIDE Phi Ak	24" WIDE Tho Invar	28" WIDE Tho Ak	
MRCR	0 ~ 255	-	-	-	-	-	-	-	-	-	Measure data
MRCG	0 ~ 255	-	-	-	-	-	-	-	-	-	Measure data
MRCB	0 ~ 255	-	-	-	-	-	-	-	-	-	Measure data
MRWDG	0 ~ 255	-	-	-	-	-	-	-	-	-	Measure data
IBRM	0 ~ 255	208	198	207	208	197	208	197	204	214	G2 Vlotage of CRT
WDRV	0 ~ 255	117	120	108	114	105	42	124	118	98	Fix
CDL	0 ~ 255	166	140	188	160	149	230	140	150	148	Fix
COL(R)	0 ~ 255	76	125	115	152	100	160	88	176	215	Fix
COL(G)	0 ~ 255	76	125	115	152	100	160	88	176	215	Fix
COL(B)	0 ~ 255	76	125	115	152	100	160	88	176	215	Fix

OSD	RANGE	SIM-806EW1(SEH)					SIM-806EW1(HQ)				Remarks
		28" WIDE Tho Invar	32" WIDE Tho Invar	28" WIDE SED Flat	32" WIDE Pin Flat	32" WIDE Tho Flat	29" Flat	21" Flat	25" Flat	LG Pin Free Set	
MRCR	-	-	-	-	-	-	-	-	-	-	Measure data
MRCG	-	-	-	-	-	-	-	-	-	-	Measure data
MRCB	-	-	-	-	-	-	-	-	-	-	Measure data
MRWDG	-	-	-	-	-	-	-	-	-	-	Measure data
IBRM	0 ~ 255	211	211	205	200	230	220	220	220	240	G2 Vlotage of CRT
WDRV	0 ~ 255	105	93	43	95	88	40	35	40	55	Fix
CDL	0 ~ 255	200	250	197	210	233	210	165	200	255	Fix
COL(R)	0 ~ 255	180	180	142	125	198	150	70	150	160	Fix
COL(G)	0 ~ 255	180	180	152	125	198	150	70	150	160	Fix
COL(B)	0 ~ 255	180	180	197	125	198	150	70	150	160	Fix

OSD	RANGE	SIM-812MA3			SIM-812MAD	SIM-806MA3		SIM-812EA1	SIM-806EI1	SIM-806EI3		Remarks
		29" Flat	CIS 29" Flat	CIS 29" Flat SKD CKD	29" Flat	29" Flat	34" Flat	29" Flat	29" Flat	29" Normal	21" Flat	
MRCR	0 ~ 255	-	-	-	-	-	-	-	-	-	-	Measure data
MRCG	0 ~ 255	-	-	-	-	-	-	-	-	-	-	Measure data
MRCB	0 ~ 255	-	-	-	-	-	-	-	-	-	-	Measure data
MRWDG	0 ~ 255	-	-	-	-	-	-	-	-	-	-	Measure data
IBRM	0 ~ 255	220	220	220	220	200	220	220	220	220	225	G2 Vlotage of CRT
WDRV	0 ~ 255	35	35	35	35	35	3	35	35	35	45	Fix
CDL	0 ~ 255	220	220	220	220	160	220	220	220	205	150	Fix
COL(R)	0 ~ 255	150	150	150	150	200	150	150	150	120	150	Fix
COL(G)	0 ~ 255	150	150	150	150	200	150	150	150	120	150	Fix
COL(B)	0 ~ 255	150	150	150	150	200	150	150	150	120	150	Fix

After setting COL/CDL/WDRV/IBRM to each spec of models, adjust the screen VR till the color of MRCR/MRCG/MRCB/MRWDG becomes green

4-8-2(H) OTHERS

No.	OSD	Function
1	VSU	Vertical Setup Time. Delays the vertical sync to solve the jitter of OSD and TTX . Check OSD while varying 96 ~ 111 step by step and an 1H line moves at two points. If the value is set at the first point or second point, an OSD jitter may happen. Also, if the value is set between the first andsecond points, a TTX jitter may happen. So, the value of VSU should be set after giving some magines (three steps).
2	H QEW	Short for Q-CRT HORIZNOTAL EAST WEST,data used only for Q-CRT MODEL. In NORMAL mode, the horizontal picture size is within 5 ~ 5.5. In Q mode, the horizontal picture size is within 6.5 ~ 7. This H QEW function sets the gap between horizontal picture size in NORMAL mode and horizontal picture size in Q mode.
3	H ZOOM PARABOLA	In ZOOM mode of P-SIZE, Adjusts vertical linearity. Each CRT has a different data. (Refer 'other' data)
4	H 16:9 PARABOLA	In 16:9 mode of P-SIZE, Adjusts vertical linearity. Each CRT has a different data. (Refer 'other' data)
5	TTX H SHIFT	Adjusts TTX horizontal position
6	MONO SOUND SYSTEM	NOT USED, KS3A chassis has no function of Mono sound system.
7	V SLICE LEVEL	Allows the sync slice level of sync separate block to be changed. This item corresponds the case where a vertical bouncing happens according to signal conditions by area. (overmodulation, especially). 0: 100% 1: 90% 2: 75% 3: 60%
8	MELODY VOLUME	Sets the level of melody volume in Picture ON. It is managed differently according to buyer or area.
9	AKB	Short for Auto Kined Bias, a function that maintains uniformity inbrightness and white balance by automatically correction the variance of brightness and white balance according to temperature and characteristics of AMP in the CRT drive
10	TTX LIST PRIOR	TTX mode has two different types; List and FLOF. When swtiching into the TTX mode, this function determines which type has priorty. On : Australia Off : others country
11	MAIN NEWLIN	Controls the picture compressing rate.
12	Main PFGHB	Controls the horizontal blanking when the picture size compressed.
13	PIP BLKLR	PIP blanking level red(PIP low light white balance). Adjust low light white balance of PIP.
14	PIP BLKLB	PIP blanking level blue(PIP low light white balance). Adjust low light white balance of PIP.
15	PIP PKLR	PIP peak white level Red. Adjusts high lignt white balance of PIP.
16	PIP PKLG	PIP peak white level Green. Adjusts high lignt white balance of PIP.
17	PIP PKLB	PIP peak white level Blue. Adjusts high lignt white balance of PIP.

SIM-806EW doesn't have this function

OSD	RANGE	INITIAL DATA						Remarks
		SIM-812MA3		SIM-812MAD	SIM-806MA3		SIM-812EA1	
		29" Flat	29" Flat DVD	CS29A6MT	34" Flat	29" Flat	Southeast Asia 29" Flat DVD	
VSU	96 ~111	100	100	100	102	100	100	Fix
H QEW	-30 ~ 30	0	0	0	0	0	0	Fix
H ZOOM Parabola	-30 ~ 30	8	13	13	13	13	13	Fix
H 16:9 Parabola	-30 ~ 30	-15	-17	-20	-17	-17	-17	Fix
TTX H Shift	-30 ~ 30	6	6	6	6	6	6	Fix
Mono sound system	BG	BG	BG	BG	BG	BG	BG	Fix
V Slice Level	0 ~ 3	2	2	2	3	2	2	Fix
Melody Volume	0 ~ 20	8	8	8	10	8	8	Fix
AKB	On/Off	On	On	On	Off	On	On	Fix
TTX List Prior	On/Off	-	-	-	-	-	On	Fix
Main Newlin	40 ~ 100	-	-	87	-	-	-	Fix
Main PFGHB	146 ~ 206	-	-	190	-	-	-	Fix
PIP BLKLR	0 ~ 15	-	-	5	-	-	-	Fix
PIP BLKLB	0 ~ 15	-	-	5	-	-	-	Fix
PIP PKLR	155 ~ 255	-	-	255	-	-	-	Fix
PIP PKLG	155 ~ 255	-	-	255	-	-	-	Fix
PIP PKLB	155 ~ 255	-	-	255	-	-	-	Fix

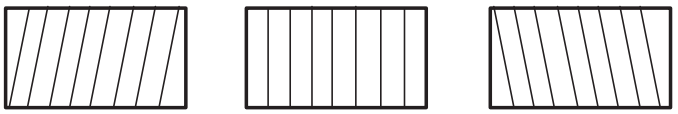
OSD	RANGE	SIM-812EA1		SIM-806EI1	SIM-806EI3		Remarks
		Australia, Newzealand 29" Flat dvd	Thailand 29" Flat DVD	India 29" Flat DVD	29" Normal	21" Flat	
VSU	96 ~111	100	100	100	108	108	Fix
H QEW	-30 ~ 30	0	0	0	0	0	Fix
H ZOOM Parabola	-30 ~ 30	13	13	13	0	8	Fix
H 16:9 Parabola	-30 ~ 30	-17	-17	-20	-10	-18	Fix
TTX H Shift	-30 ~ 30	6	6	10	0	0	Fix
Mono sound system	BG	BG	BG	M	BG	BG	Fix
V Slice Level	0 ~ 3	2	3	2	2	2	Fix
Melody Volume	0 ~ 20	8	10	8	15	15	Fix
AKB	On/Off	On	On	-	-	-	Fix
TTX List Prior	On/Off	Off	On	-	-	-	Fix
Main Newlin	40 ~ 100	-	-	-	-	-	Fix
Main PFGHB	146 ~ 206	-	-	-	-	-	Fix
PIP BLKLR	0 ~ 15	-	-	-	-	-	Fix
PIP BLKLB	0 ~ 15	-	-	-	-	-	Fix
PIP PKLR	155 ~ 255	-	-	-	-	-	Fix
PIP PKLG	155 ~ 255	-	-	-	-	-	Fix
PIP PKLB	155 ~ 255	-	-	-	-	-	Fix

4-8-2(I) Y-ADD

No.	OSD	Function
1	H-BOW	Horizontal bow control (Refer to bottom picture) actually no active function.
2	H-ANGLE	Horizontal angle control (Refer to bottom picture) actually no active function.
3	H-DSCC	Discharge sample counter for deflection retrace.
4	DVD TINT CONTROL	Determines whether DVD SUB TINT control is used. VDP3130Y B1 is set to '1' and B2 is set to '0'.
5	DVD SUB TINT	Adjusts the color phase in the Picture standard mode and receives a NTSC DVD signal.
6	EHT OFFSET	EHT Compensation east/west offset coefficent (Not used)
7	EHT HORIZONTAL	EHT Compensation east/west gain coefficent (Not used)
8	VDPY B2 Version	Selects the VDP3130Y IC version. B2 version is set 'ON,' but B1 version is set 'OFF.

① H- BOW

② H- ANGLE

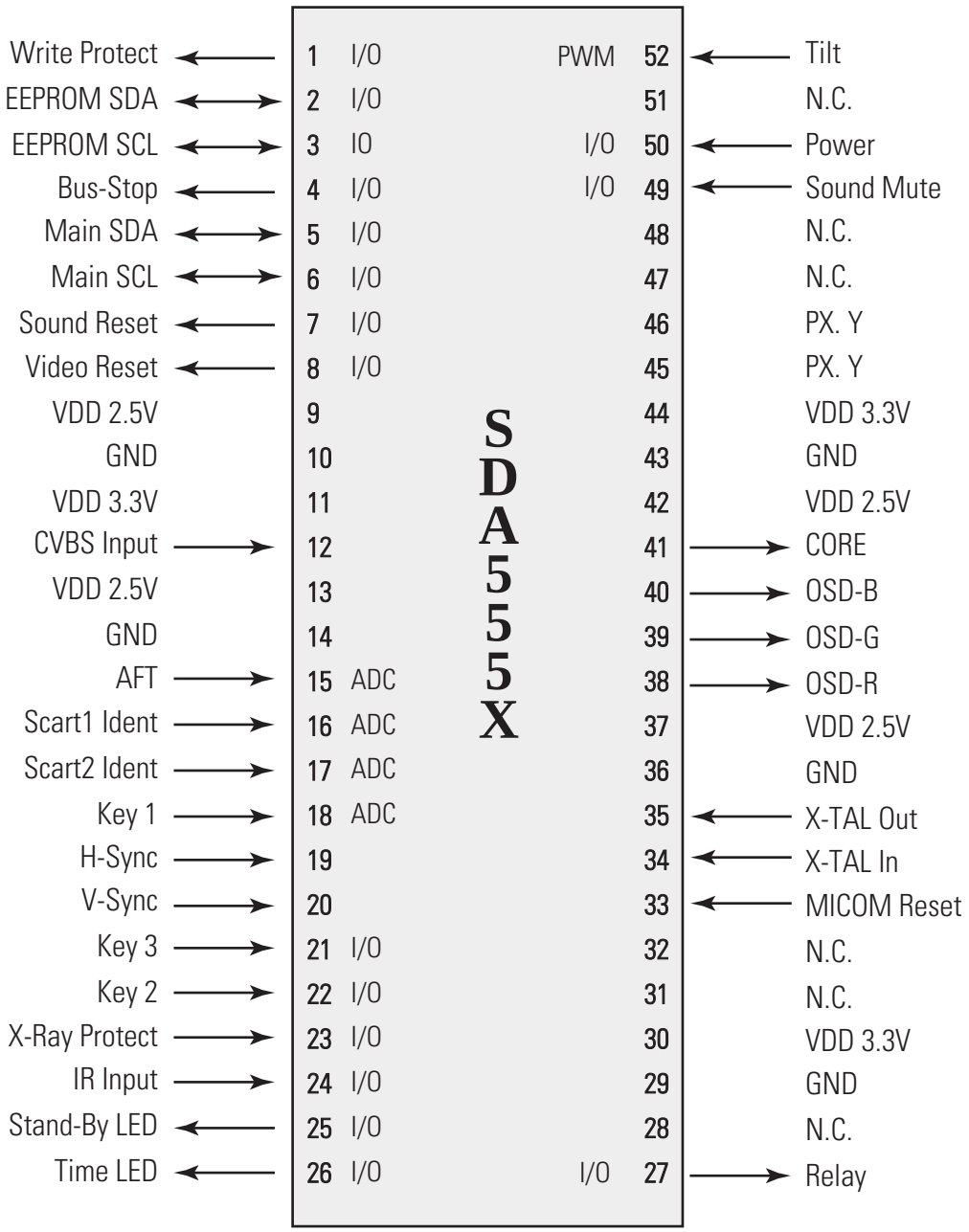


SIM-806EW doesn't have this function

OSD	INITIAL DATA										Remarks
	SIM-812MA3	SIM-812MAD		SIM-806MA3		SIM-812EA1		SIM-806EI1	SIM-806EI3		
	29" Flat	29" Flat DVD	CS29A6MT	34" Flat	29" Flat	29" Flat DVD (VDP3130Y B1)	29" Flat DVD (VDP3130Y B2)	India 29" Flat DVD	29" Normal	21" Flat	
H-BOW	0	0	0	0	0	0	0	0	0	0	Fix
H-ANGLE	0	0	0	0	0	0	0	0	0	0	Fix
H-DSCC	3	3	3	3	3	3	3	3	3	2	Fix
DVD TINT CONTROL	1	1	1	1	1	1	0	0	0	0	Fix
DVD SUB TINT	25	25	25	25	25	25	25	25	60	60	Fix
EHT OFFSET	0	0	0	0	0	0	0	0	0	0	Fix
EHT HORIZONTAL	0	0	0	0	0	0	0	0	0	0	Fix
VDPY 32 Version	Off	On	Off	Off	Off	Off	On	On	On	On	Fix

4-9 MICOM

4-9-1 Pin Layout



4-9-2 Pin Assignment Specification

PIN NO	FUNCTION	ASSIGN	IN/OUT	ACTIVE H/L	DESCRIPTION
1	I/O	Write Protect	Out	Low	EEPROM Write Protection
2	I/O	ROM SDA	I/O		EEPROM Serial Data Line
3	I/O	ROM SCL	I/O		EEPROM Serial Clock Line
4	I/O	Bus Stop	In	Low	Disable Micom IIC
5	I/O	Main SDA	I/O		Peripheral IC Serial Data Line
6	I/O	Main SCL	I/O	Low	Peripheral IC Serial Clock Line
7	I/O	Sound Reset	Out	Low	MSP IC Initial Control
8	I/O	Video Reset	Out		VDP IC Initial Control
9	Vdd	VDD 2.5V			
10	GND				
11	Vdd	VDD 3.3V			
12	CVBS	CVBS Input	In		TTX CVBS Input
13	Vdd	VDD 2.5V			Analog B+
14	GND				Analog Ground
15	ADC	AFT	In		Auto Fine Tuning Control
16	ADC	SC1-ID	In		Scart1 Ident
17	ADC	SC2-ID	In		Scart2 Ident
18	ADC	Key1	In		Key1 Input
19	HS	H-Sync	In		Horizontal Sync Input
20	VS	V-Sync	In		Vertical Sync Input
21	I/O	Key3	In		Key3 Input
22	I/O	Key2	In		Key2 Input
23	I/O	X-Ray	In		X-Ray Protection
24	I/O	IR-In	In		Remocon Signal Input
25	I/O	STD-LED	Out		LED Drive Output(Red)
26	I/O	TIM-LED	Out		LED Drive Output(Green)

4-9-2 Pin Assignment Specification (Continued)

PIN NO	FUNCTION	ASSIGN	IN/OUT	ACTIVE H/L	DESCRIPTION
27	I/O	Relay	Out	Low	Activate Degaussssing Coil
28	N.C.				Not Used (Programmed Gound Level)
29	GND				Analog Ground
30	Vdd	VDD 3.3V			Not Used (Programmed Gound Level)
31	N.C.				Not Used (Programmed Gound Level)
32	N.C.				Micom Hardware Reset
33	Reset	Reset	In	Low	Crystal Oscillation Input
34	X-In	X-TAL In	In	6MHz	Crystal Oscillation Output
35	X-Out	X-TAL Out	Out	6MHz	Analog Ground
36	GND				Analog B+
37	Vdd	VDD 2.5V			OSD/TTX Output (Red)
38	R	OSD-R	Out		OSD/TTX Output (Green)
39	G	OSD-G	Out		OSD/TTX Output (Blue)
40	B	OSD-B	Out		Fast Blank/Half Contrast Output
41	COR	CORE	Out		
42	Vdd	VDD 2.5V			
43	GND				
44	Vdd	VDD 3.3V			
45	I/O	PX.Y	In		When The Caption Function Adopted, Used.
46	I/O	PX.Y	Out		
47	N.C.				Not Used (Programmed Gound Level)
48	N.C.				
49	I/O	S-Mute	Out	High	Sound Amp Mute
50	I/O	Power	Out	Low	Picture On/Off Control
51	N.C.				Not Used (Programmed Gound Level)
52	I/O	Tilt	Out	PWM	Tilt Control Output